STUDY OF BACTERIAL PATHOGENS FROM STOOL SAMPLES OF INFANTS AND YOUNG CHILDREN BETWEEN 1 MONTH TO 5 YEARS AND THEIR ANTIBIOGRAM AT A TERTIARY CARE HOSPITAL AT CHENNAI

ABSTRACT

Acute Diarrhoeal Diseases is the leading cause of morbidity and mortality in children under-5 years, especially in developing countries like India. This study was conducted in 150 children in the age group between1 month to 5 years admitted for Acute Diarrhoeal Diseases at Institute Of Child Health, Egmore This study aimed to find out the bacterial etiology of Acute Diarrhoeal Disease like E.coli, Shigella, Salmonella, and Vibrio and to study the anti microbial susceptibility pattern of the isolates to start specific antibiotic therapy. This study also aimed to find the serotype and genotype of the diarrhogenic Escherichia coli isolates. Escherichia coli were the predominant bacterial pathogen in children with Acute Diarrhoeal Disease. Isolation rate is 41% among 150 diarrhogenic stool samples. Antibiotic use prior to admission has reduced the isolation rate to about 26%.Male children were more affected when compared to female children and the prevalence was increased during and after the weaning period as the child grows. Exclusively Breast fed children had less prevalence of diarrhoea .Bacterial diarrhoea occurred as endemic throughout

the year with higher prevalence during summer. Majority of patients was presented with diarrhoea of less than 5 days duration and with mild dehydration. None of the patients presented with severe dehydration. Prevalence of diarrhoea was more in children living in urbanized metropolitan cities and in those families who use Over head water tank as the source of water for drinking and other purposes. E.coli isolates were found to be highly sensitive to Amikacin, Cefotaxime and Chloramphenicol. There is moderate resistance to Ciprofloxacin and Gentamicin. 19 are ESBL producers among 61 E.coli isolates. There is high resistance to Cotrimoxazole and Ampicilin due to empirical and irrational use of these drugs. Serotyping of E.coli isolates showed 31% of isolates are positive for polyvalent 1antisera and 33% of isolates are positive for polyvalent 2 antisera. Genotyping of few E.coli isolates showed bfPa (Bundle Forming Pilus Gene) positive which confirmed Enteropathogenic E.coli is the causative agent of diarrhoea in under -5 children admitted for Acute Diarrhoeal Diseases at the Institute Of Child Health, Egmore, Chennai